AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-338

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-338.01
PCSAT1 and PCSAT2 Two-Hop Operations

AMSAT News Service Bulletin 338.01
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
BID: $ANS-338.01

Bob Bruninga, WB4APR, writing on behalf of the US Naval Academy Satellite Laboratory, reported this week that the original PCSat (PCSAT1), which is operational only when its solar cells are in sunlight, has had as many as 45 users in a single day and 72 different callsigns over a period of two days. This is because PCSAT1's orbit has taken the satellite into a 12 day full-sun period.

Additionally, PCSAT2, mounted aboard an external strut on the International Space Station will be activated as its solar cells will be once again facing the sun as the ISS makes orbital attitude adjustments. The PCSAT2 user digipeater with its 145.825 uplink and 435.275 downlink will be back on-the-air.

With PCSAT1 and PCSAT2 both active, the control team at the US Naval Academy will make a few changes to improve the chances of mulitple satellite hops of digipeated signals:

1) We will add SGATE as an alias to PCSAT2 so that ANY over the horizon PCSAT1 originated packets that are heard by PCSAT2 will be relayed since these packets already contain the SGATE digipeating path.

2) Stations sending up through PCSAT1 as a first hop may get a

second hop through PCSAT2 if they use any dual hop path (ARISS, ARISS; or WIDE2-2; or PCSAT2,PCSAT1; etc) The second hop will only be heard on the PCSAT2 435.275 downlink.

3) As of December 3, the PCSAT2 435.275 downlink was switched down to 145.825 so that PCSAT2 and PCSAT1 are identical systems both with uplinks and downlinks on 145.825 acting as a 2-hop constellation both on 145.825. Both will be supporting the normal APRS aliases of WIDE, or ARISS, or APRSAT or WIDE2-2 so that you can digipeat through either one or both.

4) The PCSAT2 dowlink will shift back to 435.275 on 7 Dec to avoid any possible interference with the next school contact with Sanderson, TX, on 8 Dec at 1730z.

Bob reminds PCSat users, "Of course, the MORE that try the FEWER will be the success rate. So if you really don't know what you are doing, PLEASE do not transmit and just watch. YOUR station may be the one that SEES the dual hop, so that should be a good reward too. Make your packet as SHORT as possible and use the shortest TXD for your TNC. The PCSATs should respond with TXD's as low as 10 which is 100 milliseconds in real-time. Also, transmit occassionally, NOT repeatedly, maybe once a minute or so.

Bob summarized, "When PCSAT1 returns to eclipses, we are usually lucky enough to keep her from resetting for a few more weeks and at least daylight operations can continue normally. But once it resets, either due to peak user load or a Single Event Upset from radiation, then we lose her again until the next full sun period in the first week of March 2006."

For additional details please see the PCSAT2 web page at: http://www.ew.usna.edu/~bruninga/pcsat2.html

[ANS thanks Bob, WB4APR, and the US Naval Academy Satellite Lab for the above information]

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SB SAT @ AMSAT $ANS-338.02
ISS Active on Casual Contacts

AMSAT News Service Bulletin 338.02
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
BID: $ANS-338.02

International Space Station Commander, Astronaut Bill McArthur, KC5ACR, has been very active on the NA1SS amateur radio station aboard the ISS over the past several days. Since November 23, NA1SS has made over 50 contacts during brief operating opportunities. This past week, reports from Turkey, South Africa, South America and North America indicated NA1SS was calling CQ and making contacts.

For those who are still trying for a contact with the ISS, keep it up! For those of you lucky enough to work him, congratulations, but please give the others a little more time before making another contact since you have your QSO for Expedition 12. Lets see how many different stations he can work.

In addition, Bill has been doing 2 school contacts a week when his schedule allows. Not since Expedition 3 has a crew member

done this on a regular basis. Please consider telling Bill,
"Thank you" for all of us if you are fortunate enough to speak
with NA1SS.

Worldwide packet uplink: 145.990 MHz FM
Region 1 voice uplink: 145.200 MHz FM
Region 2/3 voice uplink: 144.490 MHz FM
Worldwide downlink: 145.800 MHz FM

Repeater Uplink: 437.800 MHz FM
Repeater Downlink: 145.800 MHz FM
Doppler Shift is 10 KHz

Russian callsigns: RS0ISS, RZ3DZR
USA callsign: NA1SS
Packet station mailbox callsign: RS0ISS-11
Packet station keyboard callsign: RS0ISS-3
Digipeater callsign: ARISS

[ANS thanks Kenneth, N5VHO for the above information]

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SB SAT @ AMSAT $ANS-338.03
Straight Key Night on OSCAR 2006

AMSAT News Service Bulletin 338.03
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
BID: $ANS-338.03

Once again AMSAT-NA is pleased to sponsor Straight Key Night on
OSCAR for enjoyment by all radio amateurs.

OSCAR SKN 2006 will run for 24 hours, 0000-2400 UTC, on 1 January
2006. It's very simple: no rules, no scoring, and no need to send
in a log. Just operate CW through any OSCAR satellite using a straight
hand key, working as many other SKN participants as you can. Contacts
via the moon (OSCAR Zero) count too.

As in past years, all participants are requested to nominate one of
the operators they worked for "Best Fist" recognition. Your nominee
need not have the best fist of those you heard, just of those you
worked.

Please send all nominations to Ray Soifer via w2rs@arrl.net.

A list of those nominated will be published via the AMSAT News Service
in early February, and in The AMSAT Journal.

[ANS thanks Ray, W2RS for the above information]

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SB SAT @ AMSAT $ANS-338.04
AMSAT Awards This Week

AMSAT News Service Bulletin 338.04
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS

BID: $ANS-338.04

Bruce Paige, KK5DO, AMSAT Director Contests and Awards, says
this week congratulations go out to all of the following.

Whitton Amateur Radio Group, G0MIN, 51 on 51 Award #45
Tokuhisa Saito, JA2NLT, 51 on 51 Award #46

To see all the awards visit http://www.amsat.org.

[ANS thanks Bruce, KK5DO, for the above information]

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SB SAT @ AMSAT $ANS-338.05
ARISS Status for the week of November 28, 2005

AMSAT News Service Bulletin 338.05
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
BID: $ANS-338.05

1. ESA CERN Contact Successful
On Tuesday, November 22, eighteen students attending the ESA CERN Geneva Science Festival each asked a question of Bill McArthur, KC5ACR, via the telebridge station, NN1SS, in Greenbelt, Maryland. The event was attended by approximately 300 students and teachers, and at least one television station and a professional photographer. ESA will edit and post a video of the contact on its website in the near future.

The audio was fed to the Echolink AMSAT and EDU_NET conference room servers. Twenty-three connections were made, including three repeater nodes, from the following countries: Belgium, France, Germany, Israel, Morocco, Slovenia,
Switzerland, Thailand, the U.K. and the U.S.A.

A write up on the contact, "Students at 'Science on Stage' Festival Talk with ISS" is available on the ARISS Europe website. A link to the audio is included. See: http://www.ariss-eu.org/2005_11_24.htm

2. Central Park Middle School (NES) Contact Successful
On Wednesday, November 23, students from Central Park Middle School, (a NASA Explorer School), in Schenectady, New York, experienced a successful ARISS contact via the telebridge station, W6SRJ, in Santa Rosa, California. Astronaut Bill McArthur, KC5ACR, answered eighteen questions posed to him by thirteen Central Park students. Four television stations (6, 9, 13 and Fox 23) covered the event.

Echolink was used for this contact, where thirty-one connections were made from these countries: Bangladesh, Canada, France, Germany, Israel, Italy, Morocco, Oman, Romania, Russia, Sri Lanka, Taiwan, Thailand, the U.K., and the U.S.A.

Central Park posted a short story covering the contact on its website: "Central Park NASA Explorer School Call International Space Station, Again" may be found at:
http://www.schenectady.k12.ny.us/NASAExplorerSchool/spacestation112305.htm>

3. School Contacts This Week
Hawthorne Brook Middle School in Townsend, Massachusetts completed an ARISS contact on Tuesday, November 29. Ralph McCall School in Airdrie, Alberta, Canada completed an ARISS contact on Friday, December 2.

4. ARRL's New Book Mentions ISS Ham Contacts
ARRL has released, for sale, the first edition of a brand new book, "Basic Radio, Understanding the Key Building Blocks." The first page of one chapter features a large NASA photograph of astronaut Leroy Chiao, who earned ham radio call sign KE5BRW. The descriptor explains that Leroy set a record in space. His record was making 23 educational radio contacts with school students while leading Expedition 10 aboard the International Space Station.

[ANS thanks Carol, KB3LKI for the above information]

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SB SAT @ AMSAT $ANS-338.06
Russian Space Agency Explains December Spacewalk Delay

AMSAT News Service Bulletin 338.06
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
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Russian space agency officials on Thursday, December 1, officially postponed the scheduled December 8 spacewalk by the Russian-American crew of the International Space Station. The December 8 spacewalk was originally scheduled to release SuitSat.

"The extravehicular activity of Valery Tokarev and William McArthur is not planned in December," Russia's Mission Control Center spokesman Valery Lyndin told the Itar-Tass news agency.

Mission Control Center Flight Director Vladimir Solovyov said the postponement was made possible since the spacemen would not have to prepare to receive a U.S. shuttle in March, as had been planned.

"It was initially planned that the American shuttle will come to the ISS in March, but now it is apparent that the 12th crew will not work with the shuttle," Solovyov told Itar-Tass.

NASA officials say the shuttle will not be launched earlier than May or July and set February 2, 2006 as the date for the postponed space-walk. SuitSat is planned for deployment during this ISS spacewalk.

[ANS thanks SpaceDaily.com for the above information]

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SB SAT @ AMSAT $ANS-338.07
St. Pierre and Miquelon Satellite DXpedition Report

AMSAT News Service Bulletin 338.07
From AMSAT HQ SILVER SPRING, MD.
December 4, 2005
To All RADIO AMATEURS
BID: $ANS-338.07

Ian, K8MM, reported DXpedition success from St. Pierre and Miquelon. "I had a great time, satellite operation was a blast, and I'm really glad that I took satellite gear with me. I was using my IC-910 with a pair of homebrew K5OE TPMII antennas along with Icom preamps.

Sunday night, the first night of the expedition, was spent at the Hotel Robert on St. Pierre. The local terrain was not favorable for satellites as I could only hear the overhead passes. The first bird I managed to get into was VO-52 and I called CQ for close to 10 minutes without making any contact as nobody was listening to the bird at that time. After a couple more fruitless tries on FO-29 and AO-51 I took the gear down and repacked it for the ferry trip to Miquelon in the morning.

Wednesday morning we awoke to gale force winds and rain. Having had my fill of HF pile-ups, I dug out the satellite antennas, put on my rain gear and braved the elements. You have not lived until you're tried put-ting up antennas in 70 mph winds! I had to wait until AO-51 was about 20 degrees in elevation before it wasn't blocked by the hotel or the mountain so I could hear it clearly. There weren't any qso's in progress so I gave a short CQ with my call and the bird quickly sprang to life with KB2YCC calling me. We exchanged info and he was the first satellite qso in the log for the dxpedition. More guys that were quickly worked on that pass were VO1ONE, W8EH, AJ9K and N8BBQ in that order.

A look at the computer showed that FO-29 would be giving me an EU pass. I put my rain gear on and went back outside to point the antennas toward the East. It was directly over the sea for the portion of time EU and FP were in it's footprint. I worked F6BBJ, ON5NY on CW. On phone the satellite sounded pile-up on 20M! I managed work PH7PCF, 2E1EUB, and PH7AT. There are many more stations in the log than I can mention here.

Operating on the FM birds, KO4MA, K1PL, WI2W, KC8ZFN, W0SAT, and many other stations made it into the log.

If anyone is thinking of going to Miquelon there isn't a place that I can't recommend more highly than the Maxhotel and I left my TPMII satellite antennas there for anyone that wants to use them. The hotel is ham friendly and Christina, the manager at the hotel, went above and beyond the call of duty."

[ANS thanks Ian, K8MM for the above information]

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SB SAT @ AMSAT $ANS-338.08
Eagle Hardware Elements

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Fred, KF0AK, is a member of the team working on the building of the Eagle Modules. He has put some information on his web page about the hardware construction of the Eagle modules. Fred says he will try to update his site weekly.

See: http://www.paulbunyan.net/users/fparker

[ANS thanks Fred, KF0AK for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits.

Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Dee Interdonato, NB2F
nb2f at amsat dot org